

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0020591; AI 43909; PER20060002 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Town of Welsh
Welsh Wastewater Treatment Facility
Post Office Box 786
Welsh, LA 70591
- II. **PREPARED BY:** Todd Franklin
- DATE PREPARED:** November 21, 2006
- III. **PERMIT ACTION:** reissue LPDES permit LA0020591, AI 43909; PER20060002

LPDES application received: October 2, 2006

EPA has not retained enforcement authority.

Previous LPDES permit effective: April 1, 2002
Previous LPDES permit expires: March 31, 2007

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Town of Welsh.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located at the end of Elizabeth Street in Welsh, Jefferson Davis Parish.
- D. The treatment facility consists of an influent structure with bar screen and grit removal with flow equalization, a Biolac aeration basin, a Biolac clarifier, a chlorine contact chamber, and a sludge return, and sludge drying beds.
- E. Outfall 001

Discharge Location: Latitude 30° 13' 33" North
 Longitude 92° 49' 26" West

Description: treated sanitary wastewater

Design Capacity: 0.7 MGD

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter / Continuous Recorder

V. RECEIVING WATERS:

The discharge is into East Bayou Lacassine in Subsegment 050601 of the Mermentau River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Subsegment 050601 of the Mermentau River Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Not Supported	N/A	N/A	N/A	Full

^{1/}The designated uses and degree of support for Subsegment 050601 of the Mermentau River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 050601 of the Mermentau River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006, from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Todd Franklin
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX.

PROPOSED PERMIT LIMITS:

Subsegment 050601, Lacassine Bayou-Headwaters to Grand Lake, is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 050601 was previously listed as impaired for organic enrichment / low DO, for which the below TMDL has been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL has been established for subsegment 050601:

Bayou Lacassine Watershed TMDL for Dissolved Oxygen Including WLAs for Two Point Source Discharges

As per the revised TMDL, which was approved on September 2, 2003, an upgrade will be required for the Town of Welsh Wastewater Treatment Facility. The revised TMDL requires limitations of 5 mg/L CBOD₅, 2 mg/L ammonia nitrogen, 1 mg/L organic nitrogen, and 5 mg/L DO. Therefore, these limitations shall be placed into the permit. Interim limitations shall be placed into the permit to give the permittee time to meet the newly imposed limitations.

Total Kjeldahal Nitrogen (TKN) is the organic nitrogen concentration plus the ammonia nitrogen concentration. Therefore, the ammonia nitrogen and organic nitrogen limits shall be replaced by a single TKN limitation of 3 mg/l monthly average.

Interim Effluent Limits:

Outfall 001

Interim limits shall become effective on the effective date of the permit and expire on August 31, 2009, six years from the effective date of the revised TMDL.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	58	10 mg/l	15 mg/l	More stringent CBOD ₅ limits shall be required in the final limits. However, during this interim period, the permit limits will be set according to the previous LPDES permit.
TSS	88	15 mg/l	23 mg/l	Limits are set through Best Professional Judgement (BPJ) in a manner consistent with technology based limits and the previous LPDES permit.
Total Kjeldahal Nitrogen (TKN)	Report	Report mg/l	Report mg/l	A limitations for TKN will be required in the Final Effluent Limits listed below. Therefore, in the interim period, a reporting requirement shall be placed into the permit for information gathering purposes.
Dissolved Oxygen (DO)	N/A*	5 mg/l	N/A	Limitation is in accordance with the revised <i>Bayou Lacassine TMDL for Dissolved Oxygen Including WLAs for Two Point Discharges</i> .

*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on September 1, 2009, six years from the effective date of the revised TMDL, and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	29	5 mg/l	7.5 mg/l	Limitations are in accordance with the revised <i>Bayou Lacassine TMDL for Dissolved Oxygen Including WLAs for Two Point Discharges</i> .
TSS	88	15 mg/l	23 mg/l	Limits are set through Best Professional Judgement (BPJ) in a manner consistent with technology based limits and the previous LPDES permit.
Total Kjeldahal Nitrogen (TKN)	18	3 mg/l	6 mg/l	Limitations are in accordance with the revised <i>Bayou Lacassine TMDL for Dissolved Oxygen Including WLAs for Two Point Discharges</i> .
Dissolved Oxygen (DO)	N/A*	5 mg/l	N/A	Limitation is in accordance with the revised <i>Bayou Lacassine TMDL for Dissolved Oxygen Including WLAs for Two Point Discharges</i> .

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing

facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0038784: Effective: April 1, 2002
Expired: March 31, 2007

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg...</u>	<u>Weekly Avg..</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD ₅	10 mg/l	15 mg/l	1/week	3 Hour Composite
TSS	15 mg/l	23 mg/l	1/week	3 Hour Composite
NH ₃ -N				
March – November	2 mg/l	4 mg/l	1/week	3 Hour Composite
December – February	5 mg/l	10 mg/l	1/week	3 Hour Composite
Dissolved Oxygen				
March – November	5 mg/l	---	1/week	Grab
December – February	2 mg/l	---	1/week	Grab
Fecal Coliform				
Colonies/100 ml	200	400	1/week	Grab
pH	Range (6.0 su – 9.0 su)		1/week	Grab

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates that the most recent inspections for this facility were in relation to Hurricane Rita. According to the most recent Hurricane Impact Damage Audit, this treatment facility has returned to pre-hurricane operational status.

B) Compliance and/or Administrative Orders

A review of the files indicates the following most recent enforcement action administered against this facility:

LDEQ Issuance:

Compliance Order
Enforcement Tracking No. WE-C-01-0660
Date Issued – June 20, 2005
Findings of Fact:

1. The Respondent owns and/or operates a POTW serving the Town of Welsh

located at 603 Elizabeth Street in Welsh, Jefferson Davis Parish, Louisiana. The Respondent was issued LWDPS permit WP 2541 on April 24, 1995, which expired on April 23, 2000. The Respondent was issued NPDES permit LA0020591 on April 10, 1992, with an effective date of April 11, 1992, and which expired on April 10, 1997. In accordance with the Department's assumption of the NPDES program on August 27, 1996, NPDES permit LA0020591 became a LPDES permit. The Respondent submitted a permit renewal application in a timely manner and LPDES permit LA0020591 was administratively continued. LPDES permit LA0020591 was reissued to the Respondent on March 18, 2002, with an effective date of April 1, 2002, and an expiration date of March 31, 2007. Under the terms and conditions of LPDES permit LA0020591, the Respondent is authorized to discharge treated sanitary wastewater into East Bayou Lacassine, thence into the Mermentau River, both waters of the state.

2. An inspection on November 28, 2000, revealed the Respondent failed to properly monitor its effluent. Specifically, the Respondent exceeded fecal coliform holding times for the monitoring periods of December 1999, February 2000, March 2000, May 2000, and July 2000.
3. An inspection on August 14, 2001, revealed that the Respondent was not properly operating and maintaining its sewage treatment plant. Specifically, the Respondent failed to calibrate its flow meter. Also, the Respondent used expired pH buffers, and the Respondent's sewage treatment plant contained excessive solids.
4. An inspection on August 14, 2001, revealed the Respondent failed to properly calibrate its pH meter. Specifically, the Respondent used two buffers to calibrate its pH meter in lieu of three-point calibration buffers as required in Standard Methods for the Examination of Water and Wastewater test methods.
5. An inspection on September 27, 2002, revealed that the Respondent was not maintaining proper records. Specifically, the Respondent was not maintaining pH and Dissolved Oxygen meter calibration logs.
6. An inspection on September 27, 2002, revealed that the Respondent was not reporting as required by LPDES permit LA0020591. Specifically, the Respondent was analyzing pH and dissolved oxygen daily, but not reporting these values on its DMRs.
7. An inspection on September 27, 2002, revealed the Respondent was not properly sampling. Specifically, the Department's inspection on September 27, 2002, indicated that the collection of 3-hour composite samples began before 10:00 am. LPDES Permit LA0020591 specifies that the first portion of the composite sample shall be collected no earlier than 10:00 am.
8. Inspections on November 28, 2000, August 14, 2001, and September 27, 2002, and a file review on May 18, 2005, revealed the Respondent was discharging inadequately treated sanitary wastewater. Specifically, a review of the Respondent's DMRs revealed effluent limitation violations. From May 2000 through September 2004, there were 5 BOD₅ violations, 1 TSS violation, and 6 fecal coliform violations reported on DMRs.
9. Inspections on November 28, 2000, August 14, 2001, and September 27, 2002, and a file review on May 18, 2005, revealed the Respondent was not reporting as required. Specifically, the Respondent failed to indicate the number of excursions for TSS on its May 2000 DMR. Also, the Respondent failed to report pH on its DMR for the monitoring period of February 2001. Furthermore, the Respondent failed to report ammonia-nitrogen on its April 2002 DMR.
10. A file review on May 18, 2005, revealed the Respondent failed to submit a timely DMR for the monitoring period of February 2001.

Order:

1. To immediately take any and all steps necessary to achieve and maintain compliance with permit limitations and conditions contained in LPDES permit LA0020591.
2. To submit to the Enforcement Division a written report that includes a detailed description of the circumstances surrounding the cited violations and actions taken or to be taken to achieve compliance with the compliance order.

C) DMR Review

A review of the discharge monitoring reports for the period beginning July 2004 through June 2006 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
CBOD ₅ , Weekly Avg.	001	September 2004	15 mg/l	22 mg/l
NH ₃ -N, Weekly Avg.	001	March 2006	4 mg/l	7.2 mg/l
TSS, Monthly Avg.	001	June 2006	15 mg/l	18 mg/l
TSS, Weekly Avg.	001	June 2006	23 mg/l	33 mg/l

XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDLs. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.7 MGD.

Effluent loadings are calculated using the following example:

$$\text{CBOD}_5: 8.34 \text{ lb/gal} \times 0.7 \text{ MGD} \times 5 \text{ mg/l} = 29 \text{ lbs/day}$$

At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 0.5 and 1.00 MGD.

Effluent Characteristics

Monitoring Requirements

	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recorder
CBOD ₅	1/week	3 Hour Composite
Total Suspended Solids	1/week	3 Hour Composite
TKN	1/week	3 Hour Composite
Dissolved Oxygen	1/week	3 Hour Composite
Fecal Coliform Bacteria	1/week	Grab
pH	1/week	Grab

In order to allow the permittee time to upgrade the facility to meet limitations imposed by a TMDL, **INTERIM LIMITS** are proposed for this facility.

The permittee shall achieve compliance with the **FINAL EFFLUENT LIMITATIONS** and **MONITORING REQUIREMENTS** as specified in accordance with the following schedule:

ACTIVITY	DATE
Achieve Interim Effluent Limitations and Monitoring Requirements	On the effective date of the permit
Achieve Final Effluent Limitations and Monitoring Requirements	On or before September 1, 2009

The above listed activities must be achieved on or before the deadline date. Additionally, the permittee shall submit a progress report outlining the status of all facility improvements on a yearly basis until compliance is achieved.

Within 14 days of completion of the new facility or facility upgrade and/or expansion, the Permittee shall notify the Department of Environmental Quality-Office of Environmental Services in writing that construction has been completed.

The Permittee shall achieve sustained compliance with Final Effluent Limitations.

Where the percent project completion reported is less than would be required to assure completion of necessary upgrades by the required date, the report of progress shall also include an explanation for this delay and proposed remedial actions.

No later than 14 days following a date for a specific action (as opposed to a report of progress), the permittee shall submit a written notice of compliance or noncompliance.

Pretreatment Requirements

Due to the absence of pretreatment categorical standards for the indirect discharges listed above or the discharge is of sanitary wastewater only, it is recommended that LDEQ Option 1 Pretreatment Language be included in LPDES Permit LA0020591.

This language is established for municipalities that do not have either an approved or required Pretreatment program. This recommendation is in accordance with 40 CFR Part 403 regulations, the General Pretreatment Regulations for Existing and New Sources of Pollution contained in LAC Title 33, Part IX, Chapter 61, and the Best Professional Judgement (BPJ) of the reviewer.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII

TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV

REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations/ Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Town of Welsh, Welsh Wastewater Treatment Facility, October 2, 2006.